IN THE CLAIMS:

CLAIMS

- 1) (Original) A method for the design and/or the selection of chemokines variants having agonist or antagonist property towards a ligand of GPCR of animal cells comprising the following steps:
 - A) obtaining a phage displayed library expressing on their surface said chemokine variants mutated within the domain responsible for their effector function,
 - B) having a culture of animal cells expressing on their membranes the GPCR,
 - C) Incubating the cell culture with the phage library obtained In A),
 - D) harvesting the cells after removal of non specifically bond and surface receptor bound phages,
 - E) Releasing the phages internalized in step C) by lysis of cells obtained in D)
 - F) Infecting an $E.\ coli$ culture with the released phages obtained in E) and amplifying the clones previously internalized ,
 - G) Obtaining a phage library enriched in internalizing chemokines ligands,
 - H) Assaying the agonist or antagonist property of the chemokine variants versus the native one.
- 2) (Original) The method according to claim 1 wherein the chemokine is RANTES.

- 3) (Original) The method according to claim 1 wherein the GPCR expressed within the membrane of animal cells is CCR5.
- 4) (Original) The method according to claim 1 wherein the animal cells are human cells.
- 5) (Original) The method according to claim 2 wherein the phage library of RANTES variants is obtained using a method comprising the following steps:
 - Obtaining a DNA sequence coding for human RANTES resulting from the amplification of cDNA prepared from activated PBMCs,
 - Performing a PCR mutagenesis of the 5'portion of the DNA sequence of RANTES using a specific downstream primer and a degenerate upstream primer containing recognition sites for restriction enzymes in order to insert the PCR amplification products into the phage display vector,
 - Inserting the purified PCR products into a phage display vector,
 - Production of the phage library by introducing the vector containing the purified PCR products into an *E. coli* culture.
- 6) (Original) The method according to claim 2 wherein anti-HIV activity is assayed.
- 7) (Original) A method for the design and/or the selection of chemokines having agonist or antagonist property towards a GPCR of animal cells comprising the following steps:

- A) obtaining a phage displayed library expressing on their surface said chemokine mutated within the domain responsible for their effector function,
- B) having a culture of animal cells expressing on their membranes the GPCR,
- C) Incubating the cell culture with the phage library obtained in A),
- D) Eliminating the non specifically bond phages from the cells, by a process keeping the specifically bound phages on the said receptor
- E) Incubating the cells obtained in D) with an *E. coli* culture and amplifying the clones being infected by the phages bound to the said receptor on animal cells,
- F) Obtaining a phage library enriched in externally bound phages,
- G) Assaying the agonist or antagonist property of the chemokine variants versus the native chemokine.
- 8) (Original) The method according to claim 7 wherein the chemokine is RANTES.
- 9) (Original) The method according to claim 7 wherein the GPCR expressed within the membrane of animal cells is CCR5.
- 10) (Original) The method according to claim 7 wherein the animal cells are human cells.

Application No. 10/791,814

- 11) (Original) The method according to claim 8 wherein the phage library of RANTES variants is obtained using a method comprising the following steps:
 - Obtaining a DNA sequence coding for human RANTES resulting from the amplification of cDNA prepared from activated PBMCs,
 - Performing a PCR mutagenesis of the 5'portion of the DNA sequence of RANTES using a specific downstream primer and a degenerate upstream primer containing recognition sites for restriction enzymes in order to insert the PCR amplification products into the phage display vector,
 - Inserting the purified PCR products into a phage display vector,
 - Production of the phage library by introducing the vector containing the purified PCR products into an E; coliculture.
- 12) (Original) The method according to claim 8 wherein anti-HIV activity is assayed.
- 13) (Currently Amended) A compound obtainable by a method according to anyone of claims 1 to 12 of the following formula: *SP#SSQ&&& (SEQ ID NO: 24) -RANTES(10-68), in which
 - * is L or an aromatic residue,
 - # is L, M ouV
 - & is S, P, T or A.

14) (Currently Amended) The compound according to claim 13) having one of the following formulae:

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LSPVSSQSSA
               (SEQ ID NO: 1) (P_1)
               (SEQ ID NO: 2) (P_2)
FSPLSSQSSA
LSPMSSOSPA
               (SEQ ID NO: 3)
WSPLSSQSPA
               (SEQ ID NO: 4)
WSPLSSQSSP
               (SEQ ID NO: 5)
LSPQSSLSSS
               (SEQ ID NO: 6)
ASSGSSQSTS
               (SEQ ID NO: 7)
ISAGSSQSTS
               (SEQ ID NO: 8)
               (SEQ ID NO: 9)
RSPMSSQSSP
YSPSSSLAPA
               (SEQ ID NO: 10)
MSPLSSQASA
               (SEQ ID NO: 11)
ASPMSSQSSS
               (SEQ ID NO: 12)
QSPLSSQAST
               (SEQ ID NO: 13)
QSPLSSTASS
               (SEQ ID NO: 14)
               (SEQ ID NO: 15)
LSPLSSQSAA
GSSSSSQTPA
               (SEQ ID NO: 16)
               (SEQ ID NO: 17)
YSPLSSQSSP
               (SEQ ID NO: 18)
FSSVSSQSSS,
VSTLSSPAST,
             (SEQ ID NO: 30)
ASSFSSRAPP, (SEQ ID NO: 31)
QSSASSSSSA, (SEQ ID NO: 32)
QSPGSSWSAA, (SEQ ID NO: 33)
QSPPSSWSSS, (SEQ ID NO: 34)
QSPLSSFTSS, (SEQ ID NO: 35)
LSPQSSLSSS, (SEQ ID NO: 6)
ASPQSSLPAA, (SEQ ID NO: 36)
LSPVSSQSSA (SEQ ID NO: 1)
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Application No. 10/791,814

- 15) (Currently Amended) The compound according to claim 13) having the formula: FSPLSSQSSA (SEQ ID NO: 2)-RANTES(10-68).
- 16) (Currently Amended) The compound according to claim 13) having the formula: LSPVSSQSSA (SEQ ID NO: 1)-RANTES (10-68).
- 17) (Currently Amended) A pharmaceutical composition which comprises of a compound having the formula $*SP\#SSQ\&\&\&_(SEQ\ ID\ NO:\ 24)$ -RANTES(10-68), in which
 - * is L or an aromatic residue,
 - # is L, M ouV
 - & is S, P, T or A,

or a pharmaceutical salt thereof, in a mixture with one or more pharmaceutically acceptable excipient.

- 18) (Currently Amended) The composition of claim 17) in which the compound have the formula: LSPVSSQSSA (SEQ ID NO: 1)-RANTES(10-68).
- 19) (Currently Amended) The composition of claim 17) in which the compound have the formula: FSPLSSQSSA (SEQ ID NO: 2)-RANTES(10-68).
- 20) (Original) A method for preventing and/or inhibiting HIV infection in humans comprising a step of treatment with a composition of claim 18).
- 21) (Original) A method for preventing and/or inhibiting HIV infection in humans comprising a step of treatment with a composition of claim 19).

22) (Original) A method for preventing and/or curing inflammatory or malignant diseases in humans comprising a step of treatment with a composition of claim 13 or 14.